ATTACHMENT F

OPERATION AND MAINTENANCE PROGRAM FOR TREATMENT BMPS

An Operation and Maintenance Program (OMP) will be prepared for the Meadowood VTM upon final design. At that time, the OMP will be inserted into Attachment F of the project's SWMP.

ATTACHMENT G

FISCAL RESOURCES

Estimated Operations and Maintenance Costs for the Meadowood Vesting Tentative Map - Attachment G J-15956
July 24, 2009

Treatment Control BMP Identifier ⁽¹⁾	Location ^(t)	Type of Treatment Control BMP per County SUSMP	Total Cost ⁽²⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2012A)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2012B)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2018A)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2018B)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2019A)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2019B)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2022.5A)	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Drainage Basin 3000 (2022.5B)	High Rate Media Filter	\$1,473.20 ⁽³⁾
Detention Basin (DB3)	Drainage Basin 3000	Settling Basin	\$4,328.36
Detention Basin (DB4)	Drainage Basin 4000	Settling Basin	\$4,328.36
Detention Basin (DB7A)	Drainage Basin 7000A	Settling Basin	\$4,328.36
Detention Basin (DB7B)	Drainage Basin 7000B	Settling Basin	\$4,328.36
Detention Basin (DB8A)	Drainage Basin 8000A	Settling Basin	\$4,328.36
Detention Basin (DB8B)	Drainage Basin 8000B	Settling Basin	\$4,328.36
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	The southern most inlet along	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Horse Ranch Creek Road	High Rate Media Filter	\$1,473.20 ⁽³⁾
BioClean Inlet Filter Insert w/a BioMEDIA Green Filter	Offsite Improvements (32 Units)	High Rate Media Filter	\$47,142.40 ⁽³⁾
		Total =	\$87,850.00

Notes:

⁽¹⁾ For the BMP locations, refer to the exhibit located in Attachment D.

⁽²⁾ Unless stated otherwise, the BMP operations and maintenance costs were obtained from Appendix H of the County of San Diego's February 10, 2003 SUSMP (see attached for a copy).

⁽³⁾ County information does not have BMP annual operations and maintenance costs for the BioClean unit. However, the operations and maintenance procedures of a BioClean unit are similar to that of a Fossil Filter (with the exception of the Filter Media). Therefore, the annual cost of \$1,183.40 for a Fossil Filter plus a cost of \$289.80 for the BioMEDIA Green Filter (assumes that the filter media will be replaced twice a year) was utilized for the BioClean Inlet Filter Insert w/a BioMEDIA Green Filter (Total Cost = \$1,473.20). See attached information for backup.



DATE:			_ 1	PROJECT:	Example		
CUSTOMER:				ADDRESS:			
							
CONTACT:				PHONE:			
Filters located a and 1 X/yr for V Service and Ma Disposal of CEVALUATION OF TRANSPORTATION OF TRANSPORTATION OF THE BIO Clean Equit and to press	t the above referants or as per lo aintenance Includers captured by the booms and Biopon of debris, sed and of BioMedia Collected debris, by Environmental Serve its history.	renced projection and community and communit	ct. Bio Clean's ror city requirement or city requirement of the change o	recommende ents. Yearly ged out at a n ed of in accor roved facility of filters will b m incorporate	d cleaning evaluation inimum of dance with and in accorded as a tracking is for yearly	service the Stormw is quarterly for filters can be provided. at least twice per ye local and state required ordance with local are to landowner, city of g program used to in	ar. irements. ind state r municipality. dentify each inlet specified in the
Service Agreemen	nt and includes	cleanings	per year. Addition	nal fuel charge	of% w	ill be billed each quart	er.
Media Filter (1	Media Filter CI	B 84" to 144"	, ,	Media Filter CIE	3 144° to 180°
# of Filters* Price per Filter	1 \$126.00		Price per Filter	\$136.00		Price per Filter	\$147.00
		I			3	Media Filter GISB 29"	× 37" up to 48" × 54"
Media Filter CI	8 100 to 288		Media Filter GISB	Op 10 26 x 36]]	Media Piles GISB 25	X 37 Up 10 40 X 34
Price per Filter	\$187.00		Price per Filler	\$200.00	j i	Price per Filter	\$210.00
	*************	•••••••			•••••		• • • • • • • • • • • • • • • • • • • •
Total \$ Per	r Cleaning		Cleanings	Per Year		TOTAL PRICE	PER YEAR
Filters	\$126.00	x	Filters	2 .] =	Cleanings	\$252.00
						Fuel Surcharge	\$37.80
Fuel Surcharge	15%	ı			TOTAL	\$289	0.80
Please see Bio C		reement for	specific details				
			•		uestions, pl	ease feel free to cor	ntact me at (760)
Regards,							
Greg B. Kent							
President			·				

P O Box 869, Oceanside CA 92049 (760) 433-7640 Fax (760) 433-3176 www.biocleanenvironmental.net i o Andon Appendik H Eştimatod O&M Casi for Treatment BMPA; 25:27Details

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Estimated visuses derived from Calibans Pitot BMP Study. This appeadshed will	Caltrans Pilot BMP Study.	This opnoadsheet will				3	ł	Ц	Equipment	휘		Materials	20	1	Comments
change as additional data becomes available.	mes avauabe.					Per. Hrs R	Rate Cost	II Type	Days	rate	Cost	flem	Sos	Cost	
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Preventive Maintenance and					Cition and a second		1		+					T	
ROUTINE ACTIONS	MAINTENANCE	FIELD MEASUREMENT	MEASUREMENT	MAINTENANCE	RECUREMENTS	529			4	jin.		· · · · · · · · · · · · · · · · · · ·	2000年	100	er y
Height of vegelation	Average vegstation height exceeds 12. Inches, enrergance of trees, or woody vegstation	Visual inspection of vegetation throughout stripfewale	Once during wat season, once during dry season, (depending on growth)	Cut vegetation to an average helpht of 8 inches	Remove any trees, or woody vegatefor.	9	43.63	ene-ton fruck & 436.3 hydroseeder	*6 10 to	2 26.84	53,98	string vimmer, rake, fork, bage, sefety equipment	8	539.98	
Assess adequain vegelative cover	Less than 90 percent coverage in sets invertexes are less than 70 percent on weale stds alops	Visual inspection of striptavela. Prepare a site externatic to record location and distribution of bearing spoke to be restrued. File the bear externed. File the schematic for a schematic of a separament of persistent problems.	Assess quantity insected in May each year falls we's eason and late of y eason.	Reseed/revegation barren apols by Nov.		- 1 S		one-ten frucis & 348.04 hydruseeder	P Son	48.78 - 48.78	48.16	051 pers	951	547.19	: 1 (1) 1 (1) 2 (1) 8 (1)
						٥	43.63	one-ton truck & 0 hydroseeder	der de	0 28.84		0			
Inspect for datives becommission	Depris of the name	N. Visina observator	Durkg routhe traiting per Districts schoolds.	If after 2 applications (2 seasons) of mescafraginesself and growth te unsuccessful both times, an excellent or equivalent protection will be trainfed over enough area.		D D	85.	one-ton truck & O hydraseeder gre-ton truck & gre-ton truck & gre-ton truck & 0 hydroseeder	oder & Ader & Ad			28.04 0 blankel 0 0 0		Total	0 10
propert for accumulated	Sediment at or near vegotation helght, charmeling of flow, inhibited flow due to change in stope.	Visual observation	Annually	Remove sediment. If for its charmeled, delemine cause and take corrective action. It has corrective action. It secures deep enough to charge the forw gradlant, herrove sediment during dry desaon, charderize and preparely dispose of addressit, and revegabile.	n de Por	9	43.63	A hurt nu-eno A hurtasseder	mek &		48.15 48.15	seed, beting and disposal 15 of sediment	90 P	106.23	View years)

2003 2003 Court H Estimated O&M Cost for Treatment BMPscs=20stelle

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Estimeted viaues denved train courses a rule change as additional date becomes available.	es avallable.				d	Par Hrs Rato	Rate Cost	Type	Days rate	Cost	Nam (Cost		
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General Maintenance Inspection	Iniat situctures, outlet structures, aide slopes or other fastures damaged, significant erosion, emargence of trees, woody vegetation , fance damage, att.	Visual observation	Semi-Annually, late wet season and late dry season.	Corrective action prior to wet assson. Consult augheer if an immediata solution is not evident.	Remove any trees, or woody vegetation.	#	43.63	one-lan fruck & 698.08 frydruseeder	2	26.64 53.68			87.12	
TOTAL BIO FILTER AND SWALES						23	228	2268.78	地方などの時間は現場を行びい	203.66		200	2972.42	Element of the second
BIO STRIP WITH SPREADER				Downtor the spreader dich to a depth of less	li the above			8			•		Ď	
Inspect for standing water	Water accumulation in appreader olich	Stending water in apreader ditch	Within 72 hours after a storm event 0.75 inches or greater.	then 0.25 inches. It asserts to the watering activity, then watering activity, then more or remove that portion of the sediment. Cheracterize and properly dispose.		7	17	130.89	0	0	0		130.89	
				Dewater the spreader detect to a depth of less than 0.25 by removing the bypass plug and silowing the waler to drain into the infliction to prevent addressing into the discharging into the infliction transforment. Replace the dewatering conce the dewatering has a devention of the dewatering one the dewatering has a dewatering and the dewatering one the dewatering has a dewatering has a dewatering and the dewatering has a dewatering and the dewatering has a dewatering and a dewa	y	· ·	9	87.78	5	0	•		261.78	

Appendix H Estimated OSM Cost for Treatment BMPs: 15-Details

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Estingted vigues derived from Califorus Pibot BMP Study. Ints spreadureer von change as additional data becomes eveilable.	Irrans Pilot BluP Study. In es evallable.	Spreaduring st				Per. Hra R	Lebor Rate C	Cost Type	Equipment	rate	Cost Ilam	Materials m Cost	Cost	allering)
			3	At the end of the wat season, remove the bypase plug and allow the spreader district to prevent seamen from discharging filed the infiledon transchottza, charactertza, end dispose of sediment from the spreader clitch. Replace the sppase plug before the beginning of the wet season.		a	59 53	87.26 sodan		21.28	lasting & disposel	802 2 2 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8. 908.	
OTAL BIO STRIP WITH	7.70				語を対して	90	品牌工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工工	2399.65	を表現の		203.60	800	3103 31	
CONTINUOUS DEFLECTIVE CONTINUOUS DEFLECTIVE Preventive Marherance and Routine Inspections											+++			
DESIGN CRITERIA. ROUTINE ACTIONS Inspect sump for accumulation of material.	MAINTENANCE	PIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE	TE-SPECIFIC EQUIREMENTS	第 45		0			0		0	
	When the sump is 50% full during two consecutive monthly inspections.			E1				•			0			
	or Annually in May, effect	×		Empty unit		Z,	43.63	one-tan truck & 3141,36 vactor	nock &	196.75	teating & disposal disposal 598.25 costs	1800 1800	0 5537.81	
Inspect well box for	Presence of trash and danks	Vsual observation	Monthly during the well season	Remove trash and debris while onsite conducting inspection.			•	0		0	5	100 miles	0	Hours accounted for during 0 inspections
accumulation of makes said frespect for standing walter. (Include with all of harpection)	Standing water in sump		25	if standing water carruct be removed or remains r through the wet season notify VCD.	Mone				erigin de _				TOTAL TOTAL	No.
inspect the screen for damage and to ensure that it is properly festened.	Screen becomes clopged, damaged of bose	Vieural observation	Annually before wet season.	Clean scroon.	None	0	0	0	0	0	0	0	0	accounted for during 0 inspections
	Holes in screen, large debris, damage to		Annually or after a	inmediately consult with angineer and manufacturer's representative to develop a course of action, effect repairs prior to the well account.	5 B V			o			0			Haurs excounted for during 0 Inspections
Inspection for structural integrity TOTAL COS UNITS	thy housing or welr box	Visual observation	CORRIGOR.			72		3141.36			596.25	=	1600 5537.61	5
DRAIN INLET INSERTS -			111							ŀ				

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change as additional data becomes available.	nes avellable.					Per. Hrs	Rate	Cost	Type De	Days rate	Cost	Item	Cost	Cost	
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, fs	MANYTEVANCE FINDICATOR Surdiant describination that could inflation with proper functioning of insert	EASUREMENT EASUREMENT Saval officeration	MEASUREMENT FREQUENCY During the Metaessen	INTENANCE	SITE.SPECIFIC REQUIREMENTS	100	6 4 4 4	0			en .		_ <u> </u>		
O Before and once during each				Remove and property dispose of debris/hesh. Target completion period while orisits conducting inspection.		8	63,63	785.34						785.34	
anger somm (9.2 or) even	Absorbent granufos dark gray, or darker, or unit cloggoed with sedfment.	Visual observation	C At the end of each larged2 storm (0.25 fn) event	Replace Fossil FillerTM edecrtent within 10 working days. Characterize and Characterize and propenty depose spent medis prior to well season.		2	43.63	67.28						87.28	
	Broken or otherwise	A to the control line	Twice por year in	Ropiace insert or immediately consult vendor to devake course of action, effect repairs within 10 working days	Nore	2	43.63	67.28				0		87.26	
Inspection for structural inlegitly	-	None	Annually, in May	Remove, characterize, and properly dispose of media a Replace media before Oct 1	None	2	43.63	87.26 sedan		- 5	2128 2128	new adsorberk and testing & disposal 28 costs	115	233.54	
TOTAL DRAIN INLET	1					24		1047.12			21.28	28	115	1183.4	
ORAIN INLET INSERTS -			27					1			-				
Preventive Maintanance and															
DESIGN CRITERIA		0.000	WEASIBEMENT	MAINTENANCE	SITE-SPECIFIC						-				
ROUTINE ACTIONS	NAINTENANCE	MEASUREMENT	FREQUENCY	ACTIVITY	RECUIREMENTS					-	-				
Sediment removal	Sediment more than 6- inches	Vaust hapedian of sadiment colocted within listeri	Duding the wet season.	-		E. I.	0				Y	o.		• 10	
inspect for debtishash	Sufficient debrates with that could interfere with proper functioning of insert	United observation	During the wel seaso	debrishrash. Target completion period while onsite conducting in inspection.	· · · · · · · · · · · · · · · · · · ·			0		Sil	1	0 27	- 1-		0
	When oil absorbent polymer becomes ashumled with oil		Manthly	Within 10 working days, replace oil absorbent polymer			2 43.63	87.28				0	-	B7.26	9
and the state of t	Listra greese remove.		Twice per year in	Replace Intent or immediately consult vandor to develop a course of action, effect repairs within 10 working days.	ng.		2 45.63	87.28						87.26	26

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change as additional data becames available.	tes evallable.				, v	Labor Per. Hrs Rate	Cost Ty	Type Days	rate Cost	Ilem Cost	Cost	
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TOTAL DRAIN INLET						0	261.78		21.28		195 478.06	
EXTENDED DETENTION BASINS												
Preventive Maintenance and Routine Inspections												
DESIGN CRITERIA.			П		DEMORPH STO							
ROLTINE ACTIONS	MAINTENANCE	FIELD MEASUREMENT	MEASUREMENT		REQUIREMENTS							
Beain side slope planted for expalon protection and planted	Average vegetation height greater than 12- inches, emergence of trees or woody.	Visual observation and random: messurements through out the side	Once during wat season, once during dry season.	Cut vegetation to an average height of 6-bactes and remove transverses. Remove any frees, or woody vegetation.		48	2094.24	one-ton truck	28.54	atring trimmer, rake, fork, bags, safety \$8 equipment	2187.92	
invert	Foldence of erosion	Vigual observation	October each year	Reseed/revegetate barren spots prior to wet season.		6- 43.63		one-ton bruck's.	4815	poet 0	951	
Oxide section.				Contact environmental or landscape architect for appropriate seed mbt.		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						
			Ī	Scartly surface If			,					1
							1	i i				o de la como
				it after two applications (2 seasons) of reseeding/revegetaking								lay 1
				unsuccessful both firmes,			5					
				equivalent protection will be installed over eroding ereas. No eroston blankel will be installed in the basin hover.	IN I		19(f)	apart vo	APARTE STATE	o provei	9	
	Standing water for more	Sample of the sa	Annually, 72 hours after a target2 storm to 75 in) awant	o Drain facility	Nene	13 1 Lee. 1	1 1	A. A	調が		S.An. S.	ارا در ارای در در د
Inspect for standing waller.	man ra nous	_		D Check and undog dogged office.	Should be Annual Mice.	が、日本版		Model of				
2				Noilly engineer, if travediate actubon is not evident.	3							
(napedion for trush and debris	S Debris/Trash present	Visual observation	During routine trashing, per Districts schedule.	Remove and dispose of trush and debrts	Nane			Survey (
inspection for eadiment management and characterization of sediment for	Sediment depth corected marker on starf	O Measure depth at apparent maximum and minimum accumulation of scounistics aff sediment. Calculate	A	Remove and property dispose of eathment. Ramndel freedssay.				Storms Usecons Iller, one Frick & Psoconse		lescing and	480	

Appendix H Estimated O&M Cost for Treatment BMPs, XIEL

		AP	APPENDIA	Estimated	5	(c)	-	-		H		-	H	П	П
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change es additional data becomes evallable.	ed evallable.					Per. Hrs Re	Rate Cost	1 Type	9 Days	rate	Cost	Item C	Cost	8	
naped for burnows	Burrows, holes, maunds	Visual observation	Annuzily and effer a vegetation travaling.	O Where burrows cause seepage, arcsion and leakage, backfill firmly.						-) 40 -	-	A. J.		
General Mal/stanance	s, outlat		ats wet	Corrective action prior to wat season. Consult andineur if frmedate	Non		43.63	898.09 one-ten truck	TUCK 2	26.84	85.68			751.76	
nspection Covers Coverage ASSIN	1	Visual observation	sesson Memuny	1		980		3490.4			177.98		089	4328.38	T
INCH TRATION BASINS		1						+			1	1	t	1	
Preventive Maintenance and Routine Inspections															
DESIGN CRITERIA,	MAINTENANCE	FIELD	MEASUREMENT	MAINTENANCE	SITE-SPECIFIC .	17									
ROUTHE ALTENS Pogelation of basin invertand	Vegetation height exceeds 12 inches, emergence of trees or	Visual observation and random measurements through out the side store and invest ama	Once during wat season, once during day season.	Cut vegetation to an average halight of 6- arverage halight of 6- troes, Remote any trees, or woody vegetation.	None		43.63	2094 24 Person truck		2 50	001	sitra trimmer, rake, fork, bags, safety equipment	8	2244.24	
sado spola	Standing water for more		Annuelly, 72 hours after a target2 atom (0.75 in) event.	O Drain facility, if possible.		٩	8.5	98.08 one-ton	Evek	28.84	107.36			805.44	11.2 12.3 12.3 12.3 12.3 12.3 12.3 12.3
Inspect for standing water.	Wan 12 mouta			O Notily engineer to consider.								_	-		
				C Remove sediment, scartly invest, and regrade if necessary.			4	•			•			0	covered under sediment removel
				C If unable to achleve ecceptable infiltration rate or traplement alternative southan than alternative southan than move to decommission.		٠		0						0	
				O II standing water can not be removed then notly VCD.	None								1446 <u>15-11</u>	The state of the s	
Inspection for trash and debris at Intel structures	Debris/trash present	Visual observation	During routine trashing, per Districts schedule.	, Remove and dispose of trash and debris	None					ilisi gapa			:	O.	
Inspedien for sediment	Sediment depth exceeds marker on staff	Measure depth at apparent madmum and mahmum soomulation of the secondation of the secondation when a secondation are secondation are secondation as the seco	Annually	Remove, characterize, and properly dispose of sediment. Regrade and revegelate bare areas.	Nore		8.8	4-yd du bruck, to brafter, g sectan, bruck & 174.52 hydrose	mp ader & prader, one-fan order	0.5 256.94	128.47	seed, testing	8	452.88	once every 10 years
Botamusbon	Evidence of entition.	Visual observation	October each year.	Reseed/revegolals barren spots by Nov. Scarify surface If needed.		20	43.63	ons-ton truck 872.6 hydroseeder	one-ton truck & hydroseeder	48.15	5 48.15	peed	275	1195.75	

Appendix H Estimated O&M Cost for Treatment BMPS. AT

Inspect for burnows Burnows, bridge, mounds, Visual observation wegatation birmstrig, several particles and the several pa
inter attractures, outfol single-state and control to c
MAINTEVANCE FIELD MEASUREMENT MAINTEVANCE SITE-SPECIFIC ACTIVITY Activating surface vester famore than 72 hours of seasons for more than 84 ho
MAUNTENANCE FIELD MALASUREMENT MAUNTENANCE SITE-SPECIFIC MALASUREMENT Armusity, 72 hours Standing curbors water for more than 72 hours Visual observation (0.75 hi) event for more than 72 hours Visual observation (0.75 hi) event for more than 72 hours Visual observation for more than 12 hours for more than 72 hours for more than 12 hours for more than 13 hours for more than 14 hours for more than 15 hour
MAINTENANCE FIELD MEASUREMENT MAINTENANCE SITE-SPECIFIC Standing surface water Standing surface water Standing surface water Standing surface water To more than 72 hours To more
MAINTENANCE FIELD MEASUREMENT FREQUENCY ACTIVITY RECUIREMENTS Standing aucters weater for more than 72 hours for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation (0.75 in) event for more than 72 hours observation for course of action in each level exceptable infiltration than 84PP operations that 84PP opera
Standing aurthero waster for more than 72 hours observation (0.75 in) event. Oracli facility (0.75
Diviging matrices (A) O Undertake Investigation for course of action to achieve acceptable infiltration rate. If unable to achieve acceptable infiltration free BMP operations free BMP operations
O Undertake Investigation for course for exten in services acceptable infiltration rate, if unable for activities acceptable infiltration rate, BMP operations forces forces forces

Appendix H Estimated O&M Cost for Treatment BMPs.rac.Deta

My teachers and The Share The considerate Will	F short died tong annual	like towardsbearing and	- Ilyn							-	1	1	Materials	Total	Comments
Estimated viewes derived from Caroans Frior change as additional data becomes available	so avalable.			E -		Por His	Rate	18	Type	Equipment Days R	rate C	Cost llam	m Cost	Н	П
began	Vi-Disk sediment	Visual inspection of the action of the section appropriate to sectionant should be visible at the top of the trench due to sectional buildup from sectional buildup from sectional buildup from sectional buildup from lands	Annually.	Remove top layer of banch, still, filter fabric and status, wesh some and released table cand mure hole belief banch parter hind benich parter but wets season.	None		23.63	8	gradeall shovel, 10-yd dump tvoke	. 990'0	0003	replacemer stone and 396 (Rier fabric		1200	ONSE every 15
socurivanus Goneral Maintenanco	in structures, outst structures, titler fabric or other features damaged, emergence of trees or woody vegetation, graffit or vandalism,	and the state of t	Sem-Annually, late wel season and late dry	Take corrective action, prior to wet easten. Control emplayer II immediate solution is not evident.	None Remove any Intere, or woody Vegelabon.	CO.	43.83	348.04	one-lon fuck	и	28.84	53.68			402.72
Inspedion TOTAL INFLITRATION	fonce damage, sig.	Visua othervator			N	32		1396.16				503.36		1200 30	3099.52
MEDIA FILTERS - PERLITE/ZEOLITE Preventive Maintenance and Routine Inspections															
PERSON COTTENA							1				Ť	1	1	+	1
ROLTINE ACTIONS	MAINTENANCE	MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE	STE-SPECIFIC REQUIREMENTS	- 1	43.63	0.75.27	2007		79 84	0	ـا ك	╫	0
inspect for sediment accumulation in pre-beatment	Sediment occupies 10% of the Rier chamber	Measure with anoromate device	Annually in May.				43.63	174.52	one-fon truck		28.64	28.84		1	201.36
Souther Livering				Remove sedment prior to wel season. Characterize sediment and property dispose	Nons	=1	43.63	348.04	nabes	-	21.28	disposal disposal 21.28 costs	9 8 9	009	970.32
						1		0				2		-	
(napaci for minor maintenance	Per manufacture'e guidelines	Nane	Annually	Clean par manufacturer's guidelines. Prior to wel sesson.	None.		43.63	174.52	one-tan truck		26.84	56.84			201.38
Manufachan's recommended major maintantanco ingpedani (ar grein più debris al iniei and 'outet sai uthunes and within vauts	Outsellines Quidellines Quidellines Quidellines Quidellines Quidellines Quidellines Quidellines Quidellines Quidellines Annually Annually Annually Annually Annually San Annually	Per manufactura a guidelinas guidelinas (Marigi dissegnation). Standon walionina a Standon walionina a standon walionina standon s	Annually Outer region training	Consult with mean determinate the mean determination of carlsian. If mean district, if the town teason, when canitars are canidars are canidars are canidars are canidars are for the town teason. When canidars are canidars are to mean than the form and a second a second and a second	No.	0.000 (1957) 0.000	8 (2.68)	888	A constrain buck		88 88	3	major mathemanic	87	By Contract S275.88 and overable C0

mort bevineb sexualy beterrite	Caltraris Pilot BMP Study. T			l Estimate										-	2.5.1	
nange as additional data beco	mes avallable.					Par, Hrs	Rate	Cost	Туре	Equipm Days	rate	Cost	Materia	Cost	Total Cost	Comments
			-	-		7 002 1110							(-)			11 - 1
4 2	, o			D if standing water can not be removed or remains through wet season notify VCD.	None			0								Does not include Vecto Control Agency costs
eneral Maintenance spection	Intel structures, outlet structures, vault, piping, or other features damaged and for graffiti or vandadam	Visual observation	Semi-Annually, late wel sesson and late dry season Monthly	inmediate solution le not	None	9	43.63	349.04	one-ton truck	2	26.84	53.68			402.72	
OTALMEDIA FILTERS - ERLITEIZEOLITE						32	1 1	1396.18	4.			155.48	10.0	5500	7151.64	
LEDIA FILTERS - SAND											4					
reventive Maintenance and loutine Inspections		*														
ESIGN CRITERIA	MAINTENANCE	FIELD	MEASUREMENT	MAINTENANCE	SITE-SPECIFIC					- 1						
OUTINE ACTIONS	INDICATOR	MEASUREMENT	FREQUENCY	ACTIVITY	REQUIREMENTS											
rgin time of 48 hours	Drain time exceeds 72	Determine drain lime by visual observation	Annually, after one target2 atom; (0.75 in) avent during wet season	Remove sadiment, trash and debris.			43,63	174.52	one-ton truck	1	28.84	28.84			201.36	-
right dried of 40 modes	11000	14		□ Check office												
				D Notify engineer to consider removing top 2 tuches of media and dispose of sediment. Restore media depth to 16 Inches when overall media depth drops to 12 Inches. Complete prior to wet season.		1	2 43.6	523.5	8 boom truck	0,5	74.94	37.4	drums, shovel, rake, drum grappier, confined space equipment characterization and dispossi	1250	1811.00	3 every 2 yea
Inspect for sediment accumulation in sedimentatic chamber	gage.	appropriate device	Measure codiment depth annually.	Remove sediment prior to wet season. Characterize sediment and properly dispose. Remove and dispose of providing resemble of the provided prior of the prior of		· 电	2 43.8 0 43.6	1	a boom truck	0.1		lion. Lional	drums, shovet, rake, drum grappiar, confined space equipment characteriza tion and 7 disposal confined space confined	1250		3 overy 2 year
repection for tresh / debrts	Pump does not operat	Visival observation		fouting restling. Oaks a sessment to oaks mine it problem is also mechanical make a propriete sector.	None								17 11 - 17 14 - 7			

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Isto Ci-sax 24N

T every 3 year	1206.T	833	disposal	24.7302	\$6.4T	0.33	boom truck	349.04	43.63	8	depth to 12 inches.	wet season.				
1	ı		bas not		1	1 1	1			,		Inches. Complete prior to	·	1	1	
1	- 1	- 1	characteriza]	1 1				1		Lt at equib digeb sibem		. 1	1	
Į	1		equipment			1 1				1 1	EM oblbnoos3	18 Inches when everall		ı		
	1		sbace			1 1	I			1 1		dappose of sediment. of ritgeb eibern endes?		i	l l	
- 1	ì	1	Brappier,		-	1 1	1			1 1		inches of media and	. 1	j]	
- 1			шлир			1	1			\ \	ł	consider removing top 2	1	1	1	
- 1			shovel, rake,		1	ł 1	1			1 1		O Notify engineer to		1	9	
1		,	'swnp		1	1 1	i			1		!		1	1	
				0	 	-		0				O Check office				
	201.3	_		26.64	26.84	[. 	who the truck	70'6/1	63.63	_		ehdeb bns deart.	Losses	ph yisual observation	sman	snuod 84 to emit nisre
ľ							4012, GG/ GG	L3 /21				G Remove sediment,	eno nella "YisunnA ton 27.0) mote Stegned few griftib Ineve	emit risto entraeteO		
											REQUIREMENTS	YTIVITOA	FREQUENCY	MEASUREMENT	INDICATOR .	DUTINE ACTIONS
						1					SITE-SPECIFIC	MAINTENANCE	MEASUREMENT	quara	MAINTENANCE	
		-				1			-							ESIGN CRITERIA
					1	1										CHOWANA CHARA
														<u> </u>		evanitye Maintenance and outnoted
																GNAS – ERSTLITERS – SAND TMUTAG
	4602.02	2500	-	162.3				ST.8181		**						ONAS-RETJIR AIGNA LATO
	402.72			88.68	26,84	Z	Aburt not-eno	10.61E	69.64	8	anoN	• Aldent	yhtinoM nazaas	Visual observation	damage, etc.	uopoeds
i i		1		1					000	1		ton al notiutos etalbemni			vandallam, fence	eonsnetnisM Isnene
1		1	1	ì	1	1		l	1	1			Semi-Annually, late wet		vegetation, graffit or	
i			1	ĺ	{	1		ĺ	(1		take corrective action.		{	emendence of	
1		1	1	ì	1			1	1	1	1	Within 30 working days,		1	atructures, filter fabric or other damaged,	
1		1	1	1	1	1		1	1	1	1		1		Inlet structures, outlet)
5		})	}	1		1		1	1					·
Agency cost	92.78		_	0	-	+		97.78	€8.6⊅	Z	BuoN	sesson nouty VCD.				
Control		1	1	ľ	1		l		1000			tew riguonti enismen		1	1	
include Vector		1	1	ì	1	1		1	1			not be removed or				
Does not		1	1	1	1	1	1)	1	}	j	is standing water can		1		
- 1		1	1	1	1	1		ì	i		1		1		i	
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	82.78			0	1	1		85.T8 ·	€9.€\$	2	1	3vident.		1		İ
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	201.38			26.84	\$8.84	 -	Abunt inal-end	70:54	69.64	-		osaible.		Testin ert nirthw noticoo	testion within the filter	pect for standing water
(86 106	1		28 95	18 95	•	April dol.ego	C3 721	EBEV	,		Gravity drain where				
. 1		l	1	1	1	1		1	1				Annually, 72 hours after			
* .		ł	1	1	1	ł	ł	1	ł	}	1	1				
	0	-		10	+	1-		0		1	euon	eakage, backfill flmhly.	. թուրարի	Visual observation	Burrows, holes, mounds.	pect for burrows
1		1	1	1			1		1	1		bns notsons ageques	after vegetation			i e
		İ	1	1			•	1	1	l	1	взиво вистиом взяня б	nunsi Inspections	1		
			1	l		.1.			L	1	Color James Color (Color Color			C. L. S. Management		. Animum and a second
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the contract of the	5	-	ens benino	i .		+ 1"	1. 水类	22	理是是	paperation - fr	153	1		14	1	
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L'atala	Atarihi	i lie o'r				- period in and per		Michight Live		A President	Mishban Talk Wa			And the Party of t	The same of the State of the St	· · · · · · · · · · · · · · · · · · ·
	Cost	1200	mell	Cost		SVEO	Type	Cost		21H .169					'outomes es	mooed stab lanotibbe ea egn
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Comments	laloT	-		+	_			+	1					IIIW 1000EDEGIDE ESI	TO STREET STREET STREET, TH	imated viaues derived from Ca
	leloT			土	I	1:				II.		estimate			IT .ybul2 SMB tolf9 enstit	mated viaues derived from Ca

Appendix H Estimated O&M Cost for Treatment BMPs To Details

		AP	PENDIX H	l Estimate	dO&M	Cost	s fo	r BM	P Proj	ect	7,000		mated CAM (
stimated visues derived from Co	altrans Pilot BMP Study. T	his spreadsheet will														
change es additional data becom	es evallable.						Labor		Time	Equipm		0-4	Mater	$\overline{}$	Total	Comments
						Per. Hrs	Rate	Cost	Туре	Days	rate	Cost	Item	Cost	Cost	
Inspect for sediment accumulation in sedimentation	Sediment depth exceeds marker on staff	Measure with		Ramove sediment prior to wet season. Characterize sediment									drums, shovel, rake, drum grappter, confined space equipment characteriza tion and		•	
chamber	gage.	appropriate device	depth annually.	and properly dispose.		8	43.63	349.04	boom truck	0.33	74.94	24.7302	disposal	833	1206.77	every 3 years
Inspection for trash / debris	Trash and debris present	Visual observation		Remove and dispose of trash and debris during routine trashing.	None	24	43.63	1047.12	one-ton truck	2	26.84	53.68	confined space equipment	50	1150.8	
Inspect for burrows	Burrows, holes, mounds.	Visual observation	Annual inspections after vegetation trimming.	☐ Where burrows cause seepage, erosion and teakage, backfill firmly.	None										0	
Inspect for standing water	Water accumulation in any structure or other location within the fitter	Standing water in any structure or other location within the filter		Gravity drain where possible.		4	43.63	174.52	one-ton truck	1	26.84	26.84			201.36	
				Notify engineer, if immediate solution is not evident.		2	43.63	87.26							87.26	
				If standing water can not be removed or remains through wet season notify VCD.	None	2	43.63	87.26							87-26	Does not - include Vector Control Agency costs
General Maintenance Inspection	Iniat structures, outlet structures, filter fabric or other features damaged, emergence of vegetation, graftiti or vandalism, fance damage, etc.	Visual observation	Semi-Annually, late wet season and tala dry season Monthly	Within 30 working days, take corrective action. Consult engineer if immediate solution is not sydent.	None		43.63	349.0	s one-ton truck		26.84	53.6	В		402.72	
TOTAL MRDIA FILTER-SAND						-										
WO/PUMP	ļ			<u> </u>		60		2817.	·		-	210.	-	1718	4544.3	-
MULTI-CHAMBER TREATMENT TRAINS					1)	}	}	1		1				1
Preventive Maintenance and	 	 								1	- 1	1				
Routine Inspections	<u> </u>		ļ			+		 	 	+-			 			
DESIGN CRITERIA.	1	 	 	 		-	_		 	1	1		1	1	-	1
DEGIGIT ORTHERON	MAINTENANCE	FIELD	MEASUREMENT	MAINTENANCE	SITE-SPECIFIC	T		T		1						
ROUTINE ACTIONS	INDICATOR	MEASUREMENT	FREQUENCY	ACTIVITY	REQUIREMENTS	1			ļ	1-		-	1	-		ļ
Maximum filter drain time of 72 hrs for design and smaller storms	Drain time greater than 72 hours or sediment accumulation is greater than 0.1 inch over more than 50 percent of the fabric surface area.	Visual observation	After one target2 storm (0.75 in) event during wet season.	☐ Remove and replace filter fabric blanket.	,		4 43.6	3 174.5	2 one-lon truck		1 26.8	4 26.8			201.3	8
,				Of problem persists, consult with engineer, the media may need to be reptaced. Complete prior to well season.	None		2 43.6	3 87.2	8			0	0		87.2	6

		AF	PENDIX F	Estimate	a U & I	W COS	ts tor	DIVI	FIO	ect		-				
stimated viaues derived from Ca	altrans Pilot BMP Study. Ti	his spreadsheet will					Labor	-		Equipm	ent		Mate	rials	Total	Comments
ange as additional data becom	es available.					Per. Hrs		Cost	Туре	Days	rate	Cost	Item	Cost	Cost	
spection for trash/ debris at let and outlet structures and se MCTT	Trash and debits present	Visual observation.	trashing per District	Remove and dispose of riseh and debris During outline trashings.	None		0 43.63	0 0	one-ion truck	0	26.84	o	confined space equipment drums, shovel, rake	50	50	
respection for sediment occumulation	Sediment accumulates 50% of the volume underneath the tube settlers. Maximum of 2- feet grit chamber	Measure with appropriate device	Remove tube settler, measure sediment	Remove sediment prior to wet season. Characterize sediment and properly dispose.	None		43.63	1570.68	one-ion truck	Şi.	26.84		grappier, confined space equipment, characterization and disposal	600	2197.52	
				If standing water can not be removed or remains through the wet season notify VCD.	None		2 43,63	87.26				. 0			87.26	Does not include Vecto Control Agency costs
Replace filter media every 3 years per designer's specification	Operation greater than 3	Not applicable	Every 3 years	Remove and replace filter media. Characterize and properly dispose.	None		6 43.63	349.04	vactor and one ton truck	0.33	198.75	65.5875	confined space- equipment, characteriz tion and disposal	1200	1614.628	every three y
inspect sorbent pillows in main settling chamber	Darkened by oily material	Visual Observation	Annually, in May.	Annually, renew sorbent pillows, or immediately if pillows are darkened by oity material, characterize and properly dispose.	None		4 43.63	174.52	one-ton truck		26.84	26.84	sorbent pil	lov 100	301.3	B
Inspect pumps for proper functioning	Pump does not operate	Energize pump to se if water is discharged		Make assessment to determine if problem is electrical or mechanical. Take appropriate action. Replace pump if needed.	None	THE PARTY	0 43.63) 0	one-lon truck		26.84		confined space equipment confined space			0
Inspect pumps for serviceability and periodic maintenance	Per manufacture's guidelines	Per manufacture's guidelines	Per manufacture's guidelines	Per manufacture's guidelines	None		0 65.		ane-ion truck		26.84		equipment pump or parts		THE REAL PROPERTY.	0
General Maintenance	Inlet structures, cutlet structures, filter fabric, settling tubes or other features damaged, emergence of vegetation, graffiti or vandalism, fence damage, etc.	Visual observation	Semi-Annually, late we season and late dry season	Within 30 working days, take corrective action. It Consult engineer if immediate solution is not evident.	None		8 43.6	3 349.04	6 one-ton truck		2 26.8	4 53.6	8		402.:	72
Inspection TOTAL MULTI-CHAMBER	Garriago, etc.	The cost rates					64	2792.33	2			199.78	8	195	0 4942.10	08
TREATMENT TRAINS OIL-WATER SEPARATOR																
Preventive Maintenance and Routine Inspections	distantial			La value											-	
DESIGN CRITERIA, ROUTINE ACTIONS	MAINTENANCE INDICATOR	FIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE	SITE-SPECIFIC					1						

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Appendix H Estimated O&M Cost for Treatment BMPs 2020

				Estimate			1								-	
timated viaues darived from Ca	altrans Pilot BMP Study. T	his spreadsheet will					Labor			Equipm			Materia			comments
enge as additional data becom	es evaluado.			3.10		Per. Hrs	Rate	Cost	Туре	Days	rate	Cost	Item	Cost	Cost	
spect for sediment cumulation in the pre- parator and separator	Greater than 12-inches	Measure WID appropriate device	1	Prior to wet season, remove the accumulated material. Characterize and properly dispose.	None	4	43.63	174.52				0	lesting and disposal	120	264,52	every 5 years
spect for oil accumulation in	Oil depth is not more than 50 percent of	Gauge the level of ailwater with a	Annually	Prior to wet sesson remove and properly dispose of oil and grease.	None		43,63	43.83				0	testing and disposal	60	103.83	every 5 years
spect coalescer for debris and	Debris or gummy		Annuelly	Wash the coalescer in an appropriate area with high-pressure hot water when needed,	Nons		43.63	43.63							43.63	
ummy deposits	a position of the contract of	10 12 17 17 17		Fill with water prior to wet season.	None		43,63	43.63							43.63	
spect water level in tank	Less then full		Annually	Operate each mechanical component to ensure proper operation. Repair as					*				2.0			
respect for general mechanical regrity	Per manufacture's guidelines	Per manufacture's guidelines	Annually	needed	None		43.63	174.52					9		174.52	_
OTAL OIL-WATER LEPARATOR		V 3/1				. 1		479.93			-	8	0	180	659.93	
VET BASIN											1 2 7			200		
reventive Maintenance and toutine inspections																
DESIGN CRITERIA,					SITE-SPECIFIC	-			-	-	1		16.			
ROUTINE ACTIONS	MAINTENANCE INDICATOR	FIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE	REQUIREMENTS											
24-hour draw down measured beliesen the rim of the outst	Drawdown greater than	Evaluate drain time from Intel and outlet flow data loggers or observe 25 hours after target2 storm (0.75 in)	Once during well season and after complation of modification of the	-												
structure and invert of the WO orifice in the cutter structure.	25 hours or water is flowing over welr.	Observation of water flowing over spliway	facility,	If >25-hours:			4 43.6	174.5	one-lan truck	1	1 26.84	26.	-		201.36	-
Office in the Const specials.				O.Open gate to discharge water to permanent pool stevation,			2 43,6	3 87.2	6 one-lan truci		1 26.84	28.	B4		114.	
				Clear outlet of debris.			2 43.6	3 87.2	8 one-ton truck		1 26.84	26.	84		114.	1
		-		Consult engineer If needed.			2 43.8	3 87.2	6 one-ton truc	k	1 28.84	28.	84		114.	1
				if water is spilling over wetr, open cenal gate until water level is at permanent pool elevation. Check/clear outet of debris.	None		4 43,4	33 174.5	0 52 one-ton truc	*	1 28.8	4 26	.84		201.3	
Inspect for burrows	Burrows, holes, moun	da Visual observation	Annually and after vegetation trimming.	Where burrows cause seepage, erosion and leakage, backfill firmly.	None		4 43)	174	52 one-ton trut	*	1 26.8	4 26	1.84	-	201.3	36
General Maintenance	Iniat structures, outlet structures, aide etops; or other features damaged, significant erosion, graffit or vandatism, fence damage, etc.		Semi-Annually, late v	Take corrective action, restore to se-construct condition prior to wet season. Consult engineers if immediate solution is not evident.	ed		8 43	63 349	04 one-ton linu	cx .	2 26.8	14 5	3.68		402	72

2003 Appendix H Estimated O&M Cost for Treatment BMPs:::s-Postalis

		API	PENDIX	(H Estimate	404.	0000					- 1					Y
timated visues derived from Ca	thrans Pilot BMP Study. Th	la spreadsheat will				-	Labor		1	Equipm	ent		Maler	als	Total	Comments
ange as additional data become	es available.			-		Per. Hrs	Rate	Cost	Type	Days	rate	Cost	ttem	Cost	Cost	
		-	_	7		1			- 2				1			
spect Zone 1.4 for vegatation overage and density to sustain octor shatement efficacy								0				0	4.			
The state of the s		Visual, visible vegetation growth or emergent vegetation growth	Quarterly	Have a blologist survey the Wet Basin to determine if any birds are nesting or other sensitive animals are present. If birds are nesting, with advice from the biologist, proceed with the maintenance.	¥	е	70	560	sedan	1	21.28	21.28			581.2	1
eations.)				Lower and maintain the water level to expose the area to be maintained, do not completely drain basin	1		43,63	174,52	one-lon truck	,	26,84	26.84			201.3	8
				3. Mechanically remove allicut plantsvegetation		SE	43.63	2443.28	one-bin truck		26.84	80.52	string trimmer, hand tools, bags, safety equipment	100	2623	8
				Dispose of the vegetation material in a tandfill or other appropriate disposal area.		24	43.63	1047.1	2 packer		3 53.44	160.3	hand tools, safety equipment 2	50	1257.4	14
				4.5. Restock mosquito fish as recommended by vector control agency.	None		7	56	o seden		1 21,28	21.2	В		581.	26
Inspect Zone 2 4 for vegetation coverage and density to sustall vector abatement efficacy	Vegetation density is such that mosquifo fish cannot swim freely in the planted area.	Mosquito fish cannot be seen in the planted area, vegetation density approximately 80 to 100 percent	Quarterly	Annually, or at a special request of the local vector control agency					0				0			0
				1. Have a biologist survey the Wet Basin to determine if any birds an nesting or other sansitive animals are present. If birds are nesting, with advice from the biologist proceed with the maintenance.			8	70 5	60 sədan		1 212	28 21.	28		581	.28
				Lower and maintain the water level to exposite area to be maintained, do not completely drain besin			4 43.	83 174	52 one-ton truc	*	1 26.	84 26	.84		201	.36

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Соптив	Total	Cost	mell	[200]		Days	ed/I	150O	Labor	Par. Hra	- A				evallable,	mooed etab lanoliibbe as e
1	5653'6	001	eride , iennrid , elod baaf Vieles , egel Insmitivpe	ZS 08	SES	c	ug-euo	S443 ZB	59'5	95		Vilsainsche M.E. Vilsainsche M.E. Vissing Sepura sp. Vissing Se				
	SE.OTS	os .	, eloci brieri Vieles Inemqlirje	SE.081	PP.63	c	раскат	0		54		4. Dispose of the expension national iscondial or other iscondials elshorage isea				
	S01.36			P8.82	26.84		one-tan	58.471	£8,6>	•	enolý	5. Monitor vegetation deraity quarter determine grow back sie:				
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ATTACHMENT H

CERTIFICATION SHEET

CERTIFICATION SHEET

This Storm Water Management Plan has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Dennis C. Bowling, M.S. L.C.B. #32838, Exp. 06/10

Principal



ATTACHMENT I

303(d) List of Water Quality Limited Segments Information, Hydrologic Unit Exhibit, and Beneficial Uses

SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

			SAN DIEGO R	EGIONAL WATER QUALITY C	ONTROL BOARD			
					USE	PA APPRO	DVAL I	DATE: JUNE 28, 2007
REGION	ТҮРЕ	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES SI	ESTIMAT) ZE AFFEC		PROPOSED TMDL COMPLETION
9	С	Pacific Ocean Shoreline, San Clemente HA	90130000		• ,			
				Indicator bacteria		3.7 N		2005
	(e)			Beach at El Portal St. Stairs, : Clemente City Beach at South	Beach (large outlet), Ole Hanson Beach Club Beach San Clemente City Beach at Mariposa St., San Cleme Linda Lane, San Clemente City Beach at Lifeguard City Beach at Trafalgar Canyon (Trafalgar Ln.), Sa ach at Cypress Shores.	nte City Bed Headquarter	ach at L rs. Und	inda Lane, San er San Clemente
				1	Nonpoint/Point Source			516
9	C	Pacific Ocean Shoreline, San Diego HU	90711000		*			
				Indicator bacteria		0.37 N	Miles	2005
				Impairment located at San Di-	ego River Mouth (aka Dog Beach).			
,					Nonpoint/Point Source			
9	C	Pacific Ocean Shoreline, San Diequito HU	90511000					7
				Indicator bacteria		0.86 N	Miles	2005
				Impairment located at San Di	eguito Lagoon Mouth, Solana Beach. Nonpoint/Point Source			k
9	C	Pacific Ocean Shoreline, San Joaquin Hills HSA	90111000		,			
		•		Indicator bacteria		0.63	Miles	2005
				Impairment located at Cameo	Cove at Irvine Cove Dr./Riviera Way, Heisler Park- Urban Runoff/Storm Sewers	North		
					Unknown Nonpoint Source			
					Unknown point source			
9	С	Pacific Ocean Shoreline, San Luis Rey HU	90311000		•			
		•		Indicator bacteria		0.49	Miles	2005
				Impairment located at San Lu				
•			•	F	Nonpoint/Point Source			
9	C	Pacific Ocean Shoreline, San Marcos HA	90451000					
				Indicator bacteria		0.5	Miles	2005
				Impairment located at Moonl				
					Nonpoint/Point Source			
9	C	Pacific Ocean Shoreline, Scripps HA	90630000	· ·				
				Indicator bacteria		3.9	Miles	2019

This listing for indicator bacteria only applies to the Childrens Pool Beach area of this ocean shoreline segment.

Nonpoint/Point Source

SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

						USEPA APPROVAL	DATE: JUNE 28, 2007
REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
9	E	. San Elijo Lagoon	90461000				
				Eutrophic		566 Acres	2019
				Estimated size of impairment	is 330 acres.		
					· Nonpoint/Point Source		
				Indicator bacteria		566 Acres	2008
				Estimated size of impairment	is 150 acres.		
					Nonpoint/Point Source		
				Sedimentation/Siltation		566 Acres	2019
				Estimated size of impairment			
					Nonpoint/Point Source		
9	R	San Juan Creek	90120000				
				DDE		1 Miles	2019
					Source Unknown		
				Indicator bacteria		1 Miles	2005
					Nonpoint/Point Source		
9	E	San Juan Creek (mouth)	90120000				
		Dan Buan Creek (mouth)	7012000	Indicator bacteria		6.3 Acres	2008
					Nonpoint/Point Source	ow rectu	#000
		s (Monton out 300fte		
9	R	San Luis Rey River	90311000				
				Chloride		19 Miles	2019
7				Impairment located at lower			
					Urban Runoff/Storm Sewers		
		(F)			Unknown Nonpoint Source		

Unknown point source

SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

					USEPA APPROVAL	DATE: JUNE 28, 2007
REGION TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
r			Total Dissolved Solids		19 Miles	2019
			•	Industrial Point Sources Agriculture-storm runoff	*	
•				Urban Runoff/Storm Sewers Surface Mining		
				Flow Regulation/Modification		
				Natural Sources		
				Golf course activities		
	ž.			Unknown Nonpoint Source Unknown point source		
9 R	San Marcos Creek	90451000	DDE		. 19 Miles	2019
			Phosphorus	Source Unknown	19 Miles	2019
			1 nosphoras		22 1.4110	20.5
			Sediment Toxicity	Source Unknown	19 Miles	2019
		•		Source Unknown		
9 L	San Marcos Lake	90452000	Ammonia as Nitrogen		17 Acres	2019
			Nutrients	Source Unknown	17 Acres	2019
			W	Source Unknown	17 4	2010
			Phosphorus		17 Acres	2019
				Source Unknown		
9 L	San Vicente Reservoir	90721000	Chloride		1058 Acres	2019
				Source Unknown		

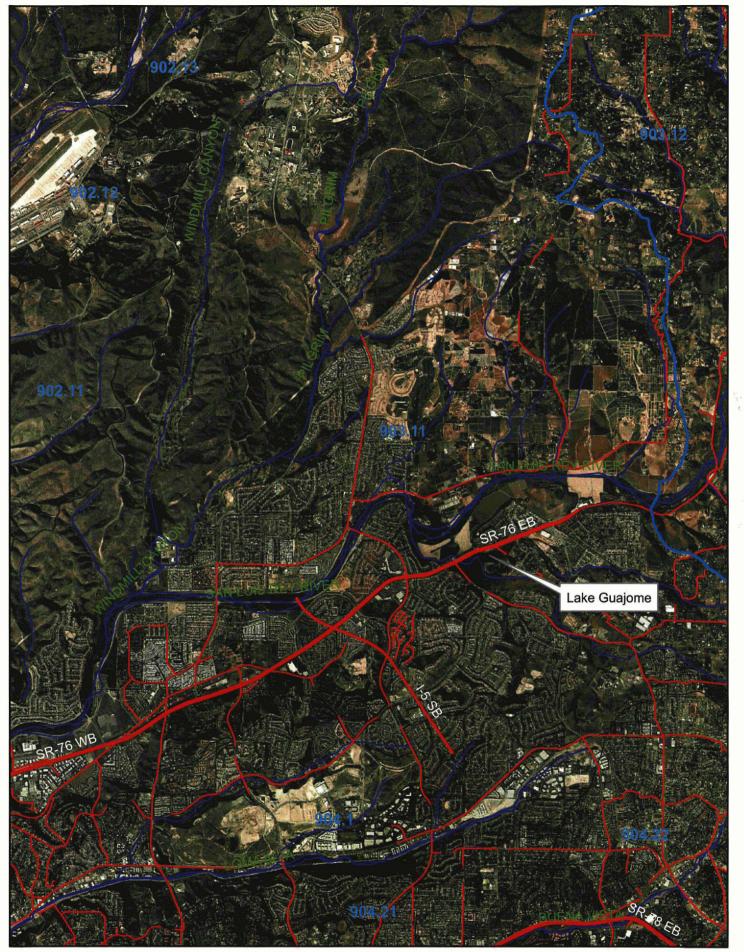
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

TICEDA	APPROVAL	OATE.	ITINE 39	2007

REGION TY	PE NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION		
9 R	Green Valley Creek	90521000	Chloride		0.98 Miles	2019		
			Manganese	Source Unknown	0.98 Miles	2019		
		æ	Pentachlorophenol (PCP)	Source Unknown	0.98 Miles	2019		
		,	Sulfates	Source Unknown	0,98 Miles	2019		
				Urban Runoff/Storm Sewers Natural Sources				
ı				Unknown Nonpoint Source Unknown point source				
4 9 L	. Guajome Lake	90311000	Eutrophic	Nonpoint/Point Source	33 Acres	2019		
9 L	. Hodges, Lake	90521000	Color .		1104 Acres	2019		
		•		Urban Runoff/Storm Sewers Unknown Nonpoint Source		r		
ij			Manganese	Unknown point source	1104 Acres	2019		
			Nitrogen	Source Unknown	1104 Acres	2019		
. 1			40-	Agriculture Dairies Urban Runoff/Storm Sewers				
* 1	ROJECT SITE 1	S NOT TH	BUTHPY	Unknown Nonpoint Source Unknown point source				

TO GUNTOME LANCE .: IS NOT APPLICATE.

Page 7 of 27

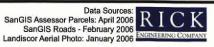


Lake Guajome Location

Filepath: J:\15956\GIS\15956_Hydrologic_Map_Exhibit.mxd Exhibit Date: December 2, 2008

REC JN: 15956







Meadowood Vesting Tentative Map Hydrologic Unit Exhibit

3,550

7,100

WATER QUALITY CONTROL PLAN FOR THE SAN DIEGO BASIN (9)

SEPTEMBER 8, 1994

(with amendments effective prior to April 25, 2007)



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Table 2-5. BENEFICIAL USES OF GROUND WATERS

				BE	NEFIC	BENEFICIAL USE	Ж	
Ground Water		Hydròlogic Unit Basin Number	∑⊃z	A D E	- z o	9 R O	шши:	ບ≥ແ
SAN LUIS REY HYDROLOGIC UNIT		3.00				ر	E	
Lower San Luis	HA 2	3.10	•	•	•			
Monserate	НА	3.20						
Pala	HSA	3.21	•	•	•			
Pauma	HSA	3.22	•	•	•			10
La Jolla Amago	HSA	3.23	•	•	•	•		
Warner Valley	НА	3.30		5				
Warner	HSA	3.31	•	•	•		•	
Combs	HSA	3.32	•	•	•			

These beneficial uses do not apply westerly of the right-of-way of Interstate 5 and this area is excepted from the sources of drinking water policy. The beneficial uses for the remainder of the hydrologic area are as shown.

Existing Beneficial Use

Table 2-2. BENEFICIAL USES OF INLAND SURFACE WATERS

	1							BEN	EFICIA	L USE			•			
Inland Surface Waters 1, 2	Hydrologic Unit Basin Number	M U N	A G R	I N D	P R O C	G W R	F R S	P O W	R E C	R E C	B 1 0 L	W A R	COLD	W	R A R	S P W N
San Luis Rey River Watershed - continued													-			
San Luis Rey River	3.12	+	•	•					•	•	•	•	,	•	•	
Live Oak Creek	3.12	+	•	•					•	•		•		•	•	-
Keys Creek	3.12	+	•	•					•.	•		•		. •		
Moosa Canyon	3.15	+		•					•	•		•		•		
unnamed intermittent streams	3.16	+	•	•				•	•			•		•		
Moosa Canyon	3.14	+	•	•				•	•			•		•		
Moosa Canyon	3.13	+	•	•				•	•			•		•		
Turner Lake	3.13	00.000	-	-l	3-31	Sec	Res	ervoir	s & La	kes -	Table	e 2-4			L	
South Fork Moosa Canyon	3.13	+	•	•				•	•	19		•		•		
Moosa Canyon	3.12	+	•	•				•	•			•		•		
Gopher Canyon	3.12	+	•	•				•	•			•		•		
South Fork Gopher Canyon	3.12	+	•	•				•	•			•		•		
San Luis Rey River	3.11	+	•	•				•	. •			•		•	•	
Pilgrim Creek	3.11	+	•	•				•	•		•	•	•	•	•	
Windmill Canyon	3.11	+	•	•				•	•			•	•	•		
Tuley Canyon	3.11	+	•	•				•	•			•		•		
Lawerence Canyon	3.11	+	•	•				•	•			•		•		-
Mouth of San Luis Rey River	3.11		<u> </u>			S	ee C	oasta	Wate	rs – T	able .	2-3				

Existing Beneficial Use

¹ Waterbodies are listed multiple times if they cross hydrologic area or sub area boundaries.

⁺ Excepted from MUN (See Text)

² Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.